

22. (New) The flexible wiring board of claim 4, wherein said first and second wirings, which are on opposite sides of said flexible insulating substrate, are not in electrical communication with one another.

23. (New) The flexible wiring board of claim 19, wherein said first and second wirings, which are on opposite sides of said flexible insulating substrate, are not in electrical communication with one another.

REMARKS

This is in response to the Office Action dated November 19, 2002. New claims 19-23 have been added. Thus, claims 4-7 and 12-23 are pending.

Applicant notes with appreciation the Examiner's indication that claims 5 and 6 contain *allowable subject matter*. New claims 20 and 21 are similar to allowable claims 5 and 6, and should also be in condition for allowance for the same reasons.

For purposes of example, and without limitation, certain example embodiments of the instant invention relate to a flexible wiring board including a flexible insulating substrate 1. As shown in the Fig. 1 embodiment for example, a first wiring 2 and a first insulative protecting film 4 are located on one side/surface of the flexible insulating substrate 1; and a second wiring 2 and a second flexible insulative protecting film 4 are located on the other side/surface of the flexible insulating substrate 1. In other words, the first and second wirings 2 are on opposite sides of the flexible insulative substrate 1 as

shown in Fig. 1. At least one of the insulative protecting films 4 has a thickness less than that of the flexible insulative substrate 1. The smaller thickness is highly advantageous over the prior art. For example, as explained on page 22 of the instant specification:

"... the thickness of the insulative protecting film 4 on the side of the plated layer 3 (lower side in Fig. 1) is made thinner than the thickness of the base polymer film 1. This relieves bending stress on a boundary portion 7 between the insulative protecting film 4 and the plated layer 3 when the flexible wiring board is bent, compared with the conventional flexible wiring board which uses polymer films of the same thickness for both the insulative protecting film and the base polymer film, thus effectively preventing wire breakage of the copper foil pattern 2 at the boundary portion 7 between the insulative protecting film 4 and the plated layer 3 when the flexible wiring board is bent repeatedly.

Claim 4 stands rejected under 35 U.S.C. Section 102(b) as being allegedly anticipated by Inaba (US 5,408,052). This Section 102(b) rejection is respectfully traversed for at least the following reasons.

Claim 4 requires that "at least one of said first insulative protecting film and said second insulative protecting film, which is connected to the surface on which the terminal portion is provided is thinner than the insulating substrate." For example, see Fig. 1 of the instant application where the first and second wirings 2 are on opposite sides of the flexible insulative substrate 1; and the first and second insulative protecting films 4 are on opposite sides of the flexible insulative substrate 1. Fig. 1 illustrates insulative protecting films 4 having respective thickness(es) less than that of flexible insulative substrate 1. The cited art fails to disclose or suggest the aforesaid quoted aspect of claim 4.

Inaba discloses a polyimide substrate 1, wirings 2, 4, and protective layers 8 including polyimide portions 7. The Office Action contends that Inaba's protective layers 7 are "thinner" than substrate 1. The Office Action is wrong in this respect.

Inaba's specification fails to disclose or suggest the thickness of layers 7 relative to the thickness of substrate 1. Thus, it appears as if the Office Action is relying solely on the drawings of Inaba for the allegation that layers 7 are "thinner" than substrate 1. Such reliance on the drawings of Inaba is clearly incorrect and directly contrary to well-established patent law.

In particular, it is well established that drawings of a patent may not be relied on to show particular sizes if the specification of the patent is silent on the issue. *Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc.*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000), *citing, In re Wright*, 569 F.2d 1124, 1127, 193 USPQ 332, 335 (CCPA 1977). Moreover, M.P.E.P. Section 2125 confirms this by explaining that "proportions of features in a drawing are not evidence of actual proportions when drawings are not to scale."¹

Thus, it is clear from the above that, as a matter of well-established U.S. Patent Law, the Office Action cannot rely on the drawings of Inaba in support of the allegation that Inaba's layers 7 are "thinner" than substrate 1. Nothing in the specification of Inaba states or suggests that either of layers 7 is/are thinner than substrate 1. Moreover, as explained above, the drawings of Inaba cannot be relied upon in this regard. The

¹ Inaba does not state that the drawings are to scale.

drawings of Inaba clearly are not intended to be to scale, and are not intended to illustrate any relationship between the thicknesses of layers 1 and 7.²

Accordingly, as a matter of law, it is clear that Inaba fails to disclose or suggest the aforesaid "thinner" aspect of claim 4. Claim 4 cannot be anticipated by Inaba. Moreover, as explained above in detail, the "thinner" aspect of claim 4 enables significant example advantages to be achieved relative to the prior art.

Claim 18 requires that "at least one of said first insulative protecting film and said second insulative protecting film, on a terminal portion side of the flexible insulative substrate, is *thinner* than the insulating substrate with respect to thickness." The cited art fails to disclose or suggest this aspect of the claim.

Claim 19 requires that "at least one of said first insulative protecting film and said second insulative protecting film, which is connected to the surface on which the terminal portion is provided, is *thinner* than the insulating substrate." The cited art fails to disclose or suggest this aspect of the claim.

Claims 22-23 require that "said first and second wirings, which are on opposite sides of said flexible insulating substrate, are not in electrical communication with one another." Inaba fails to disclose or suggest this. In fact, Inaba teaches directly away from this aspect of claims 22-23, because Inaba's layers 2, 4 on opposite sides of the alleged

² Figs. 1 and 2 of Inaba appear to illustrate conflicting thicknesses of layers 7 relative to layer 1. In Fig. 1, the layer 7 closer to the terminal appears to have a thickness less than that of layer 1. On the other hand, in Fig. 2, the thickness of layer 7 appears to be greater than that of layer 1. This conflict present in Inaba clearly indicates that the drawings of Inaba are not intended to be to scale, and are not intended to teach any sort of relationship between the thicknesses of layers 1 and 7.

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substrate 1 are clearly in electrical communication with one another through holes 5.

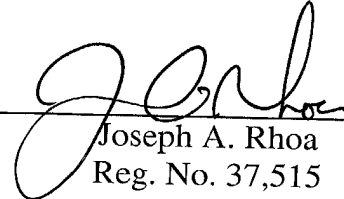
Inaba thus discloses the opposite of what these claims require.

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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